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What is claimed is :

1) A method for enhancing *in vitro* synthesis of biological macromolecules in a cell-free system where ATP is required as a primary energy source, wherein said cell-free system is enriched with ATP-sulfurylase

2) The method of claim 1, wherein the biological macromolecules are polymermolecules such as nucleic acids, proteins and fragments thereof.

3) A method according to anyone of claims 1 or 2, wherein the cell free system comprises exogenous APS.

4) The method according to anyone of claims 1 to 3, wherein said *in vitro* synthesis comprises also transcription of mRNA from a DNA template.

5) A method according to anyone of claims 1 to 4, wherein said *in vitro* synthesis is carried out in a reaction vessel as a batch reaction, semi continuously or continuously.

6) A method according to anyone of claims 1 to 5, wherein ATP-sulfurylase is added to the cell-free system at the beginning and/or during the *in vitro* synthesis or at intervals during the *in vitro* synthesis.

7) A method according to anyone of claims 1 to 6, wherein the cell-free system comprises a cell-free extract prepared from cells transformed with a vector over-expressing ATP-sulfurylase.

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8) A method according to anyone of claims 1 to 7, wherein ATP-sulfurylase concentration is adapted according to the experimental conditions and the biological macromolecules to be synthesized.

9) A method according to anyone of claims 1 to 8, wherein ATP-sulfurylase is present in the cell-free system at an initial concentration of at least about 0.1 U/ml.

10) A cell-free system enriched with ATP-sulfurylase.

11) A cell-free system according to claim 10 comprising exogenous APS.

12) A cell-free system according to anyone of claims 10 or 11 comprising all substances necessary for the translation of mRNA and transcription of mRNA from a DNA template.

13) A cell-free system according to anyone of claims 10 to 12, wherein extra ATP-sulfurylase is derived from prokaryotic organism, eukaryotic organism, transgenic vector, bacterial cell that has been genetically modified, *E. coli* extract, or is purified.

14) A cell-free system according to anyone of claims 10 to 13, wherein the cell-free extract enriched with ATP-sulfurylase is prepared from cells transformed with a vector over-expressing ATP-sulfurylase.

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15) A cell-free system according to anyone of claims 10 to 14, wherein ATP-sulfurylase is present in a concentration of at least about 0.1 U/ml.

16) A cell-free extract enriched with ATP-sulfurylase.

17) A cell-free extract according to claim 16 comprising exogenous APS.

18) A cell-free extract according to anyone of claims 16 or 17 comprising all substances necessary for the translation of mRNA and transcription of mRNA from a DNA template.

19) A cell-free system according to anyone of claims 16 to 18, wherein extra ATP-sulfurylase is derived from prokaryotic organism, eukaryotic organism, transgenic vector, bacterial cell that has been genetically modified, *E. coli* extract, or is purified.

20) A cell-free system according to anyone of claims 16 to 19 prepared from cells transformed with a vector over-expressing ATP-sulfurylase.

21) A cell-free extract according to anyone of claims 16 to 20, wherein ATP-sulfurylase is present in a concentration of at least about 0.1 U/ml.